1. Services to be Furnished:

When and as ordered by the Contracting Officer (CO) or CO designee, the Contractor shall perform services consisting of testing samples of Government-owned petroleum products as described herein. Each geographical location for which testing is required, is identified by a Contract Line Item Number (CLIN). Each CLIN is further broken down into SubCLIN's to describe additional elements of service required for that location. The CLIN system is described in attachment 1.

When testing services are offered, which are not within commuting distance of the laboratory, the contractors price shall include the cost of transportation of samples to the laboratory.

The contractor should identify, in their offer, normal working hours and points of contact (names, addresses and phone numbers) for laboratories which will provide services under the contract. Additionally, hourly rate for working outside normal working hours (overtime), as well as expedite charges shall be provided as described further below.

The following attachments describe products to be tested, types of testing required and additional information as required:

Attachment No.	**Product/Description**
1	CLINs
2	JP-5 Specs
3	JP-8 Specs
4	Jet A/A1
5	F76 Specs
6	FSII
7	Sulfides
8	JPTS

NOTE: The quantities of samples for testing are estimates only. The services the Contractor shall be required to furnish and the Government to accept shall be those that, from time to time, may be ordered during the performance period of this contract.

2. General:

The Defense Energy Support Center purchases, stores, and transports petroleum products to numerous Department of Defense activities. As part of our Quality Surveillance Program, we require samples to be submitted periodically. Testing is conducted to determine if product characteristics have changed as a result of method of transportation, length of storage and in some cases prior to discharge of marine vessels.

3. Description of Services:

a. The contractor shall provide one or more laboratories capable of performing the tests associated with the products listed in the attachments referred to in paragraph 1 above. The laboratories shall have a system of calibration equivalent to ISO 10012-1 -- Quality Assurance Requirements for Measuring Equipment.

b. The laboratory shall maintain an audit trail that will allow for identification of tests performed and specific equipment and technicians. All testing will be performed in strict accordance with test methods identified in attachments referred to in paragraph 1 above.

c. Testing of U.S. Government-owned fuel products are required 24 hours per day, 7 days per week (including holidays). Under normal circumstances, samples will be received during contractor's normal working hours as set forth in the contract. However, should testing be required at other than normal working hours, such times are covered under Section 5. Samples shall be processed, tested, and results provided to the Quality Assurance Representative (QAR) identified below, within the prescribed turn-around times as indicated.

TURN AROUND TIMES	
B-1	24 hours
C	1 hour
Individual	8 hours
Accelerated Storage Stability	48 hours
Microbiological Growth	72 hours
Expedite	1 hour

Turn-around time is measured from the time the sample is taken (by the contractor when requested) to the time test results are received by the QAR or from the time samples are sent to the laboratory to the time test results are received by the QAR.

d. The contractor shall maintain records evidencing all analysis performed under this contract. All samples tested will be documented with a detailed report which reflects standardized American Petroleum Institute / Institute of Petroleum (API/IP) format when available. The Contractor will telephone or fax test results to the QR and follow up with a hard copy by mail. Long distance phone charges, fax charges, and postage charges will not be reimbursed by the U.S. Government and should be included in testing prices.

e. Samples shall be retained, after analysis, for a minimum of 15 days. In the event of a delivery dispute a longer sample retention period may be requested by DESC.

f. The Contractor shall be responsible for disposal of excess fuel sample and sample containers.

g. Upon request of the QAR, the Contractor may be asked to provide Department of Transportation (DOT) approved sample containers and packaging/shipping materials. The Contractor is asked to quote a price under SERVICES TO BE FURNISHED above. The price should include transportation to the requesting QARs office.

4. Ordering of Services - Geographical Areas

Services are considered to be "ordered" when the Contractor's laboratory personnel receive the sample, along with instructions for which series/tests are to be performed. All orders are subject to the terms and conditions of the contract. Orders may be placed during the performance period of the contract.

Ordering of laboratory services shall be authorized by the DESC QAR assigned to the Defense Energy Support Region having cognizance over the location from which the samples originate, as follows:

(a) **AREAS OF RESPONSIBILITY AND OFFICE CODES WITHIN THE CONTINENTAL UNITED STATES (CONUS):**

Alabama	110	Maine	110	Oklahoma	110
Arizona	120	Maryland	110	Oregon	120
Arkansas	110	Massachusetts	110	Pennsylvania	110
California	120	Michigan	110	Rhode Island	110
Colorado	120	Minnesota	110	South Carolina	110
Connecticut	110	Mississippi	110	South Dakota	110
Delaware	110	Missouri	110	Tennessee	110
District of Columbia	110	Montana	120	Texas	110
Florida	110	Nebraska	110	Utah	120
Georgia	110	Nevada	120	Vermont	110
Idaho	120	New Hampshire	110	Virginia	110
Illinois	110	New Jersey	110	Washington	120
Indiana	110	New Mexico	120	West Virginia	110
Iowa	110	New York	110	Wisconsin	110
Kansas	110	North Carolina	110	Wyoming	120
Kentucky	110	North Dakota	110		
Louisiana	110	Ohio	110		

EXCEPTIONS:

(1) The El Paso, Texas, area is assigned to Code 120 (DESC Americas – West).

(2) The Newcastle, Wyoming, area is assigned to Code 110 (DESC Americas – East).

(c) **INSPECTION OFFICES AND CODES.**

110. DESC Americas -- East
Federal Building, Room 1005
2320 LaBranch Street
Houston, TX 77004-1091
Phone: (713) 718-3883
FAX: (713) 718-3891
POC: Scott Artrip
email: scott.artrip@dla.mil

120. DESC Americas -- West
3171 N Gaffey Street
San Pedro, CA 90731-1099
Phone: (310) 900-6960
FAX: (310) 900-6973
POC: Michael Koury
email: michael.koury@dla.mil

5. Additional Services and Testing Outside Normal Working Hours

The Contractor shall perform such additional tests as the Contracting Officer (CO) or designated representative may require. The representative of the CO, for purposes detailed below, is hereby designated as the (QAR) of the Defense Fuel Region as assigned in Section 4.

The Contractor may be required to perform services at times other than the Contractor's normal working hours as set forth in this contract. When tests are requested and neither the CO nor the QAR are available, the Contractor may perform any reasonable tests as deemed necessary in order to make an adequate analysis of the samples of fuel furnished for testing. No additional tests that are beyond the Contractor's capability to perform shall be required.

Invoices for services performed under this clause shall be submitted in accordance with the Clause I1.03-1(g)--INVOICE, and this document. However, a separate certification will be required on the invoice citing those additional tests that were requested under this clause, and/or the amount of overtime required, and any resulting overtime charges.

Overtime is defined as the time outside the Contractors normal working hours when the sample has been placed in the normal queue. Expedite is defined as placing the sample at the front of the queue and performing the test immediately.

6. Testing in Support of Air Force One:

In accordance with paragraph 4 above, The Contractor shall perform testing on samples submitted in support of Air Force 1 (AF1). Samples submitted in support of (AF1) will be tested in accordance with the instructions provided at the time samples are submitted. A separate invoice will be prepared for AF1 support and submitted to DFAS per section 7.

7. INVOICES:

a. The contractor shall submit an invoice to the Quality Assurance Representative (QAR) of the Defense Energy Support Center as assigned in Section 4, for certification and authorization for payment. The invoice may be mailed, emailed or faxed to the QAR who will in turn forward a signed copy of the invoice to the contractor and DFAS for payment. A copy of the test results should not be sent to DFAS with the invoice. The Contractor shall prepare the invoice on the last day of each month. Each invoice shall contain the following information:

(1) Contract number, CLIN, and SubCLIN
(2) For <u>each</u> sample submitted:
- Sample identification number
- Sample date
- Date testing is performed
- Name and location of laboratory where testing is performed
- List of tests performed and unit price for each

(3) Total amount due on same line as Contract Line Item Number (CLIN).

b. Invoice shall be made out to:

DFAS-Columbus Center
ATTN: DFAS-CVD-BBA-CC
3900 East Broad Street, Bldg 21
Columbus, Ohio 43213-1152

c. This invoicing procedure is interim and may be replaced by an automated procedure later.

CLIN and LOCATION LEGEND

CLIN POSITION

1 = Contract Year
2 = Space Filler
3&4=Location

SubCLIN POSITION

1 = Contract Year
2 = Service Requirement
3 & 4 =Location
5 & 6 =Product Code

SERVICE REQUIREMENT

A = Full-Specification Product Sample Testing
B = B-1 Series Sample Testing
C = C Series Sample Testing
D = B-2 Series Sample Testing
H = Hand blending Service. Volumetrically compositing fuel Samples taken from Barge/Tanker, or fuel samples with additives.
I = Individual Characteristic Sample Testing
K = Sampling Kits
O = Other
S = Tank Sampling Service of Product Identified at the Facility Identified
T = Transportation Service of Product Sample from the Identified Facility to the Laboratory
V = Vessel Sampling Service of Product Identified at the Facility Identified

PRODUCT CODES

CODE	PRODUCT
1	Jet A/Jet A-1
2	FSII
3	Bottom Water
4	JP-4
5	JP-5
6	F-76
7	O-250 (Lube / 17331)
8	JP-8
9	O-278 (Lube / 9000)
10	DF-1
11	DF-2
12	DF-A
13	DL-1
14	DL-2
15	DL-A
16	MUR
17	MUM
18	MUP
19	RFO
20	Hydraulic Fluids

CODE	PRODUCT
21	Lubricating Oils
22	Greases
23	FS-4
24	MGO
25	MGO (F76 SPEC)
26	COAL
27	IFO 180
28	IFO 380
29	JPTS
30	AVGAS
31	Diesel Fuel (Commercial)
32	Kerosene
33	
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LOCATION GUIDES

Continental United States (CONUS)

CONUS	
00	One time testing any location CONUS
01	Baton Rouge, LA
02	Homestead, FL
03	Key West, FL
04	Lockhart, MS
05	Montgomery, AL
06	Moundville, AL
07	Moffett Field, CA
08	New York Harbor, NY
09	Selby, CA
10	Pt. Molate, CA
11	Salt Lake City, UT
12	Doraville, Bremen, GA
13	Port Everglades, FL
14	Houston, TX
15	Norwalk, CA
16	San Pedro, CA
17	Drumwright, OK
18	Aledo, TX
19	Baltimore, MD
20	Chicago, IL
21	San Antonio, TX
22	Corapolis, PA
23	Columbus, GA
24	Macon, GA
25	Selma, NC
26	Pratt & Whitney, Palm Beach, FL
27	Boston, MA
28	South Portland, ME
29	Alamogordo, NM
30	NAS Pensacola

CONUS	
31	Las Vegas
32	Colton
33	Norfolk, VA
34	Groton, CT
35	RIK
36	Rapid City, SD
37	Paulsboro, PA
38	Pt. Mahon, DE
39	Jacksonville, NJ
40	Chelsea Mass
41	Tampa FL
42	Ludlow MA
43	Andrews AFB MD
44	Helena AL
45	Abilene, TX
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LOCATION GUIDES

Miscellaneous and Outside Continental US (OCONUS)

MISC LOCATIONS	
61	Coal Testing
62	Bunker - Coast Guard
63	Bunker - Navy
64	Bunker - MSC
65	
66	
67	
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69	
OCONUS LOCATIONS	
70	Ethiopia IP
71	Senegal IP
72	Ivory Coast IP
73	Qatar
74	Dubai, UAE
75	Jebel Ali, UAE
76	Yanbu, SA
77	Ras Tanura, SA
78	Muscat, Oman
79	Bahrain
80	Djbouti
81	Pakistan
82	Cypress IP
83	Athens, GR
84	Egypt
85	Portugal IP
86	Switzerland IP
87	Austria IP
88	Ankara Turkey
89	Turkey
90	Elazig, Turkey
91	Diyarbakir, Turkey
92	Batman, Turkey
93	Malaty, Turkey
94	Augusta Bay, Sicily
95	Naples, IT
96	Livorno, IT
97	Cagliari, Sardinia
98	Mersin, Turkey
99	Antalya, Turkey

OCONUS LOCATIONS	
A0	Iskenderun, Turkey
A1	Al Dhafra
A2	Adana, Turkey
A3	Zaho, Iraq
A4	Guam
A5	Singapore
A6	Hong Kong IP
A7	Philippines IP
A8	Australia
A9	New Zealand IP
B0	Panama/MGO
B1	Kuwait
B2	Greenland
B3	Aden, Yemen
B4	Fujairah UAE
B5	Middle East
B6	Iraq
B7	Keamari
B8	Chaklala
B9	
C1	
C2	
C3	
C4	
C5	
C6	
C7	
C8	
C9	
D1	
D2	
D3	
D4	
D5	
D6	
D7	
D8	
D9	
E1	
E2	

TURBINE FUEL, AVIATION, GRADES JP-5 NATO F-44

TESTING REQUIREMENTS, MIL-DTL-5624 (Latest Version)

A. Full Specification Testing (A Series), includes the first 23 tests in the table below, provide one price for tests 1-23. Testing shall be performed in accordance with the specified test method.

B. Individual tests or any combination of several tests maybe requested, provide individual prices for all tests listed below.

	CHARACTERISTIC	TEST METHOD, ASTM,
1	Workmanship	(2)
2	Color, Saybolt	D156 (1), D6045
3	Total Acid Number	D3242
4	Aromatics	D1319
5	Sulfur, Mercaptan, mass percent	D3227 (3)
6	Doctor Test	D4952 (3)
7	Sulfur, Total Percent	D1266, D2622, D3120, D4294 (1), or D5453
8	Distillation (4)	D86 (1), D2887
9	Flash Point (5)	D56, D93 (1), D3828
10	Density, or API Gravity	D1298, D4052 (1)
11	Freezing Point	D2386 (1), D5972
12	Viscosity at -20^{o}C	D445
13	Heating Value, Net Heat of Combustion	D3338, D4809 (1), D4529
14	Cetane Index, Calculated (6)	D976, D4737
15	Hydrogen Content	D3701
16	Smoke Point	D1322
17	Copper Strip Corrosion	D130
18	Thermal Stability	D3241 (7)
19	Existent Gum	D381 (8)
20	Particulate Matter and Filtration Time (9) (10) (12)	D2276, D5452 (1)
21	Micro-separometer Rating	D3948
22	Fuel Systems Icing Inhibitor	D5006 (11)
23	Visual (Color)	NPA, Common Descriptive Terms (13)
24	Sulfides in Bottom Water	See Statement of Work (Attachment 3)
25	Copper (CU)	IP225 (14) (specific locations only)
26	Particulate Matter (9) (10)	D2276, D5452 (1)
27	Filtration Time	(12)
31	Karl Fisher Water	D6304 (Report a or c) (pertains to Apple Jelly)

ATTACHMENT 2

C. B-1 Series Testing (one price for the following 11 tests):

	CHARACTERISTIC
1	Workmanship
2	Color (Visual)
3	Distillation
4	Flash Point
5	Density or API Gravity
6	Freezing Point
7	Copper Strip Corrosion
8	Existent Gum
9	Particulate Matter (Solids)
10	Lead content (If contaminated with leaded fuels suspected)
11	Fuel Systems Icing Inhibitor

D. B-2 Series Testing (one price for the following 14 tests):

	CHARACTERISTIC
1	Workmanship
2	Color (Visual)
3	Distillation
4	Flash Point
5	Density or API Gravity
6	Freezing Point
7	Copper Strip Corrosion
8	Existent Gum
9	Particulate Matter (Solids)
10	Lead content (If contaminated with leaded fuels suspected)
11	Fuel Systems Icing Inhibitor
12	Thermal Stability
13	Color, Saybolt
14	Total Acid Number

E. Type C Testing (one price for the following 4 tests):

	CHARACTERISTIC
1	Workmanship
2	Color (Visual)
3	Distillation
4	Flash Point

NOTES:

1. Referee Test Method.

2. Workmanship; the fuel shall be clear and bright and visually free from undissolved water, sediment, or suspended matter. In case of dispute, the fuel shall be clear and bright at 21°C. Use particulate matter test methods listed herein to determine foreign matter content.

3. Perform Sulfur, Mercaptan test or Doctor test.

4. A condenser temperature of 0 to 4 °C (32 to 40 °F) shall be used for the distillation of JP-5 fuel.

5. ASTM D3828 may give results up to 1.7 °C below the ASTM D93 results. ASTM D56 may give results up to 1 °C below the ASTM D93 results.

6. Mid-boiling temperatures shall be obtained by either ASTM D86 or ASTM D2887 to perform the Cetane Index calculation. If ASTM D86 values are used, they shall be corrected to standard barometric pressure.

7. Thermal Stability test conditions and procedures for ASTM D3241
   a. Minimum heater tube temperature at maximum point: 260 °C
   b. Fuel system pressure: 3.45 MPa (500 psig)
   c. Fuel flow rate: 3.0 mL/minute
   d. Test duration: 150 minutes

8. If air is used instead of steam while performing ASTM D381, it shall be recorded. In case of a failure with air, the sample shall be retested using steam.

9. A minimum sample size of 3.79 liters (1 gallon) shall be filtered.

10. The flow reducer ring of Appendix paragraph A.3.c of MIL-DTL-5624, is not required.

11. Tests shall be performed with ASTM D5006 using the DiEGME scale of the refractometer.

12. The following procedure shall be used for the determination of Filtration Time and may be used to determine particulate matter as an alternate to ASTM D2276 or ASTM 5452.

a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes at 90 °C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.

b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg shall not be used in the test.

c. The insert ring shall be centered on the filter base. One membrane filter shall be placed directly over the insert ring. The top funnel shall be locked into place.

d. Immediately prior to filtering the fuel, shake the sample to obtain a homogenous mix and ensure that fuel temperature does not exceed 30 °C. Clean the exterior or top portion of the sample container to ensure no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.

e. With the vacuum off, pour approximately 200 mL of fuel into the funnel.

f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liter sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (in. of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so the membrane filter is always covered.

g. Record the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, record filtration time as "greater than 30 minutes" and the total volume of fuel filtered.

h. Record the vacuum in kPa (in. of mercury) as determined from the average of the two readings taken in A.6.1.f.

i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 mL of filtered petroleum ether and dispense into the filtration funnel. Turn on the vacuum and filter the 100 mL rinse. Turn off the vacuum and wash the inside of the funnel with approximately 50 mL of filtered petroleum ether. Turn on vacuum and filter. Repeat the funnel rinse with another 50 mL of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning on the vacuum to filter the rinse. With the vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.

j. Using forceps, carefully remove the membrane filter from the filter base and place in a clean Petri dish. Dry in the oven at 90 °C for 15 minutes with the cover on the Petri dish slightly ajar. Place dish in a dessicator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.

k. Record the total solids content in mg/liter by using the following formula:

$$\frac{\text{Weight gain of filter in mgs}}{3.785} = \text{mg/liter}$$

l. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered, the solids content in mg/liter will be filtered as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

$$\frac{\text{Weight gain of filter in mgs}}{\text{ml of fuel filtered X } 0.001} = \text{mg/liter}$$

m. Vacuum shall exceed 67.5 kPa (20 in. of mercury) throughout the test and fuel temperature shall be between 18 and 30°C.

13. Common Descriptive Terms; Water White, Light Straw, Straw, Prime White, Standard White, Lily White, Cream White. Changes in shade of fuel may indicate possible degradation of product.

14. Metals: Copper will be performed in accordance with IP-225, Determination of copper in light petroleum distillates - Specrophotometric Method. Sensitivity: The laboratory must have the apparatus and expertise to enable them to perform the analysis and report results in the part per billion (PPB) range.

TURBINE FUELS, AVIATION, KEROSENE TYPES,
NATO F-34 (JP-8), NATO F-35, AND JP-8+100
TESTING REQUIREMENTS, MIL-DTL-83133 (LATEST VERSION)

A. Full Specification Testing (A Series), includes the first 26 tests in the table below, provide one price for tests 1-26. Testing shall be performed in accordance with the specified test method.

B. Individual tests or any combination of several tests maybe requested, provide individual prices for all tests listed below.

CHARACTERISTIC		TEST METHOD, ASTM
1	Workmanship	1/
2	Color, Saybolt	D156 2/ or D6045
3	Total Acid Number, mg KOH/gm	D3242
4	Aromatics	D1319
5	Sulfur, Total Percent	D129, D1266, D2622, D3120, D4294 2/ or D5453
6	Sulfur, Mercaptan	D3227
7	Doctor Test	D4952
8	Distillation 3/	D86 2/, D2887
9	Flash Point 4/	D56, D93 2/ or D3828
10	Density, or API Gravity	D1298 or D4052 2/, D1298
11	Freezing Point	D2386 2/, D5901 or D5972
12	Viscosity at -20^{o}C	D445
13	Net Heat of Combustion, MJ/kg BTU/lb	D3338 5/ or D4809 2/
14	Hydrogen Content	D3701 2/, D3343
15	Smoke Point	D1322
16	Naphthalenes	D1840
17	Cetane Index, Calculated	D976 6/
18	Copper Strip Corrosion	D130
19	Thermal Stability	D3241 7/
20	Existent Gum	D381
21	Combined Test - Particulate Matter and Filtration Time 8/	D2276 or D5452 2/
22	Water Reaction, Interface Rating	D1094
23	Water Separation Index	D3948
24	Fuel Systems Icing Inhibitor	D5006 9/
25	Fuel Electrical Conductivity 10/	D2624
26	Color, Visual	NPA, Common Descriptive Terms 11/
27	Particulate Matter (Solids) 8/	D2276 or D5452 2/
28	Filtration Time	8/
29	Sulfides in Water	See Statement of Work (Attachment)
30	Copper (CU)	IP225 12/ (specific locations only)
31	Karl Fisher Water	D6304 (Report a or c) (pertains to Apple Jelly)
32	Water - AEL or Aqua-Glo	AEL or Aqua-Glo Water Detector Kit

ATTACHMENT 3

C. B-1 Series Testing (one price for the following 14 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Distillation
4) Flash Point
5) Density or API Gravity
6) Freezing Point
7) Copper Strip Corrosion
8) Existent Gum
9) Particulate Matter (Solids)
10) Filtration Time
11) Water Reaction
12) Water Separation Index
13) Fuel Systems Icing Inhibitor
14) Fuel Electrical Conductivity

D. B-2 Series Testing (one price for the following 17 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Distillation
4) Flash Point
5) Density or API Gravity
6) Freezing Point
7) Copper Strip Corrosion
8) Existent Gum
9) Particulate Matter (Solids)
10) Filtration Time
11) Water Reaction
12) Water Separation Index
13) Fuel Systems Icing Inhibitor
14) Fuel Electrical Conductivity
15) Thermal Stability
16) Color, Saybolt
17) Total Acid Number

E. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Density or API Gravity
4) Flash Point

F. Series for Air Force One Testing: (one price for the following 11 tests):

	CHARACTERISTIC
1	Density, or API Gravity
2	Distillation
3	Freezing Point
4	Flash Point
5	Particulate Content
6	Conductivity
7	Copper Corrosion
8	Water Reaction
9	Existent Gum
10	Fuel System Icing Inhibitor
11	Water -AEL or Aqua-Glow

NOTES:

1/ Workmanship; the fuel shall be clear and bright and visually free from undissolved water, sediment, or suspended matter. In case of dispute, the fuel shall be clear and bright at 21°C. Use particulate matter test methods listed in table 1 to determine foreign matter content.

2/ Referee Test Method.

3/ A condenser temperature of 0° to 4° C (32° to 40°F) shall be used for the distillation by *ASTM D86*.

4/ *ASTM D56* may give results up to 1° C (2° F) below the *ASTM D93* results. *ASTM D3828* may give results up to 1.7° C (3° F) below the *ASTM D93* results. Method IP170 is also permitted.

5/ When the fuel distillation test is performed using *ASTM D2887*, the average distillation temperature, for use in *ASTM D3338* shall be calculated as follow: V = (10% + 50% + 95%)/3

6/ Mid-boiling temperature may be obtained by either *ASTM D86* or *ASTM D2887* to perform the cetane index calculation. *ASTM D86* values should be corrected to standard barometric pressure.

7/ Conduct test in accordance with *ASTM D3241* visual heater tube rating reference Annnex A1.

Thermal Stability test conditions and procedures for ASTM D3241

a. Minimum heater tube temperature at maximum point: 260 °C
b. Fuel system pressure: 3.45 MPa (500 psig)
c. Fuel flow rate: 3.0 mL/minute
d. Test duration: 150 minutes

After test completion; Remove the reservoir cover and pour into a measuring cylinder the fuel found above the piston only. If this measured fuel is less than 405 mls, the test must be repeated because insufficient fuel has been pumped for a normal 150-minute test. It is suggested to locate the cause of the insufficient flow before running another test.

The following data shall be reported:

a. Differential pressure in millimeter of mercury at 150 minutes, or time to differential pressure of 25 millimeters of mercury, whichever comes first.
b. Heater tube deposit visual code rating at the end of the test.
c. If a Mark 8A tube deposit rater (TDR) is available, the maximum SPUN TDR rating shall be reported.

8/ A minimum sample size of 3.79 liters (1 gallon) shall be filtered. The following procedure shall be used for the determination of Filtration Time and may be used to determine particulate matter as an alternate to ASTM D2276 or ASTM 5452.

a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes to 90º C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.

b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg will not be used in the test.

c. The membrane filter shall be placed directly over the insert ring. The top funnel shall be locked into place.

d. Immediately prior to filtering the fuel, shake the sample to obtain a homogeneous mix and assure that fuel temperature does not exceed 30º C (86º F). Clean the exterior or top portion of the sample container to ensure that no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.

e. With the vacuum off, pour approximately 200 ml of fuel into the funnel.

f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liters (1 gallon) sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (inches of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so that the membrane filter is always covered.

g. Report the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters (1 gallon) is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, report filtration time as “>30 minutes” and the total volume of fuel filtered.

h. Report the vacuum in kPa (inches of mercury) as determined from the average of the two readings taken in *f*.

i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 ml of filtered petroleum ether and dispense into the filtration funnel. Turn the vacuum on and filter the 100 ml. Rinse. Turn vacuum off and wash the inside of the funnel with approximately 50 ml of filtered petroleum ether. Turn vacuum on and filter. Repeat the funnel rinse with another 50 ml of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning the vacuum on to filter the rinse. With vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.

j. Using forceps, carefully remove the membrane filter from the filter and place in a clean petri dish. Dry in the oven at 90º C (194º F) for 15 minutes with the cover on the petri dish slightly ajar. Place dish in a desiccator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.

k. Report the total solids content in mg/liter by using the following formula:

$$\frac{\text{Weight gain of filter in mgs}}{3.785} = \text{mg/liter}$$

l. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered,the solids content in mg/liter will be figured as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

$$\frac{\text{Weight gain of filter in mgs}}{\text{ml of fuel filtered X } 0.001} = \text{mg/liter}$$

m. Vacuum shall exceed 67.5 kPa (20 in. of mercury) throughout the test and fuel temperature shall be between 18 and 30°C.

9/ Test shall be performed in accordance with *ASTM D5006* using the DiEGME scale of the refractometer.

10/ Fuel at ambient tempature or 29.4C (85F) and lower.

11/ Common Descriptive Terms; Water White, Light Straw, Straw, Prime White, Standard White, Lily White, Cream White.

12/ Metals: Copper will be performed in accordance with IP-225, Determination of copper in light petroleum distillates - Specrophotometric Method. Sensitivity: The laboratory must have the apparatus and expertise to enable them to perform the analysis and report results in the part per billion (PPB) range.

AVIATION TURBINE FUEL, GRADE JET A/A1

TESTING REQUIREMENTS, ASTM D1655 (Latest Version)

A. Full Specification Testing (A Series), includes the first 20 tests in the table below, provide one price for tests 1-20. Testing shall be performed in accordance with the specified test method.

B. Individual tests or any combination of several tests maybe requested, provide individual prices for all tests listed below.

	CHARACTERISTIC	TEST METHOD, ASTM **1/**
1	Workmanship, Finish, Appearance	1/
2	Color, Visual	2/
3	Total Acid Number	D3242
4	Aromatics	D1319
5	Sulfur, Mercaptan	D3227
6	Sulfur, Total Mass %	D1266, D2622, D4294, D5453
7	Distillation	D86 R/, D2887
8	Flash Point 3/	D56 R/**,** D3828
9	Density, or API Gravity	D1298, D4052
10	Freezing Point	D2386(R), D5972
11	Viscosity at –20^{o}C	D445
12	Net Heat of Combustion 4/	D4529, D3338, D4809 R/
13	Smoke Point, mm	D1322
14	Naphthalenes	D1840
15	Copper Strip Corrosion	D130
16	JFTOT Thermal Stability 5/ 6/	D3241
17	Existent Gum	D381
18	Water Reaction, Interface Rating	D1094
19	Microseparometer Rating	D3948
20	Fuel Electrical Conductivity	D2624
21	Color, Saybolt	D156
22	Particulate Matter (Solids) 7/	D2276, D5452
23	Filtration Time	8/
24	Combined Test for Particulate and Filter Time 7/ 8/	D2276, D5452
25	Fuel Systems Icing Inhibitor	D5006
26	Sulfides in Water	See Statement of Work

ATTACHMENT 4

C. B-1 Series Testing (one price for the following 12 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Distillation
4) Flash Point
5) Density or API Gravity
6) Freezing Point
7) Copper Strip Corrosion
8) Existent Gum
9) Particulate Matter (Solids)
10) Lead content (If contaminated with leaded fuels suspected)
11) Water Reaction
12) Fuel Systems Icing Inhibitor

D. B-2 Series Testing (one price for the following 15 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Distillation
4) Flash Point
5) Density or API Gravity
6) Freezing Point
7) Copper Strip Corrosion
8) Existent Gum
9) Particulate Matter (Solids)
10) Lead content (If contaminated with leaded fuels suspected)
11) Water Reaction
12) Fuel Systems Icing Inhibitor
13) Thermal Stability
14) Color, Saybolt
15 Total Acid Number

E. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC
1) Workmanship
3) Color (Visual)
3) Density or API Gravity
4) Flash Point

F. Series for Air Force One Testing: (one price for the following 11 tests):

	CHARACTERISTIC
1	Density, or API Gravity
2	Distillation
3	Freezing Point
4	Flash Point
5	Particulate Content
6	Conductivity
7	Copper Corrosion
8	Water Reaction
9	Existent Gum
10	Fuel System Icing Inhibitor
11	Water -AEL or Aqua-Glow

NOTES:

R/ Referee Test Method

1/ Workmanship, Finish and Appearance
Visually inspect fuel for undissolved water, sediment, and suspended matter. Note any nauseating or irritating odor.

2/ Common Descriptive Terms; Water White, Light Straw, Straw, Prime White, Standard White, Lily White, Cream White. Color shall be reported as an indicator of fuel quality. Reference X1.12.4 of D1655.

3/ Results obtained by Test Methods D 3828 may be up to 2°C lower than those obtained by Test Method D 56, which is the preferred method. In case of dispute, Test
Method D 56 will apply.

4/ For all grades use either Eq 1 or Table 1 in Test Method D 4529 or Eq 2 in Test Method D 3338. Test Method D 4809 may be used as an alternative. In case of dispute,
Test Method D 4809 shall be used.

5/ (2.5) hours at controlled temperature of 260C, Preferred SI units are 3.3 kPa, max.

6/ Tube deposit ratings shall always be reported by the Visual Method; a rating by the Tube Deposit Rating (TDR) optical density method is desirable but not mandatory.

7/ Particulate Matter—Solid particulate contaminants such as dirt and rust shall be detected by filtration of the jet fuel through membrane filters under prescribed conditions. A minimum sample size of 3.79 liters (1 gallon) shall be filtered. The following procedure shall be used for the determination of Filtration Time and may be used to determine particulate matter as an alternate to ASTM D2276 or ASTM 5452.

8/ Filtration Time Test Procedure.

a. Membrane filters shall be removed from the package and placed in an oven for a minimum of 15 minutes to 90º C. After preheating, but prior to weighing, the membrane filters shall be stored in a desiccator.

b. Each membrane filter shall be weighed. A filter weighing in excess of 90 mg will not be used in the test.

c. The membrane filter shall be placed directly over the insert ring. The top funnel shall be locked into place.

d. Immediately prior to filtering the fuel, shake the sample to obtain a homogeneous mix and assure that fuel temperature does not exceed 30º C (86º F). Clean the exterior or top portion of the sample container to ensure that no contaminants are introduced. Any free water present in the fuel sample will invalidate the filtration time results by giving an excessive filtration time rating.

e. With the vacuum off, pour approximately 200 ml of fuel into the funnel.

f. Turn vacuum on and record starting time. Continue filtration of the 3.79 liters (1 gallon) sample, periodically shaking the sample container to maintain a homogenous mix. Record the vacuum in kPa (inches of mercury) 1 minute after start and again immediately prior to completion of filtration. Throughout filtration, maintain a sufficient quantity of fuel in the funnel so that the membrane filter is always covered.

g. Report the filtration time in minutes expressed to the nearest whole number. If filtration of the 3.79 liters (1 gallon) is not completed within 30 minutes, the test will be stopped and the volume of the fuel filtered will be measured. In these cases, report filtration time as “>30 minutes” and the total volume of fuel filtered.

h. Report the vacuum in kPa (inches of mercury) as determined from the average of the two readings taken in *f*.

i. After recording the filtration time, shut off the vacuum and rinse the sample container with approximately 100 ml of filtered petroleum ether and dispense into the filtration funnel. Turn the vacuum on and filter the 100 ml. Rinse. Turn vacuum off and wash the inside of the funnel with approximately 50 ml of filtered petroleum ether. Turn vacuum on and filter. Repeat the funnel rinse with another 50 ml of petroleum ether but allow the rinse to soak the filter for approximately 30 seconds before turning the vacuum on to filter the rinse. With vacuum on, carefully remove the top funnel and rinse the periphery of the membrane filter by directing a gentle stream of petroleum ether from the solvent dispenser from the edge of the membrane toward the center, taking care not to wash contaminants off the filter. Maintain vacuum after final rinse for a few seconds to remove the excess petroleum ether from the filter.

j. Using forceps, carefully remove the membrane filter from the filter and place in a clean petri dish. Dry in the oven at 90º C (194º F) for 15 minutes with the cover on the petri dish slightly ajar. Place dish in a desiccator and allow to cool for a minimum of 15 minutes. If more than one sample is processed, cooling time will have to be increased. Reweigh the filter.

k. Report the total solids content in mg/liter by using the following formula:

$$\frac{\text{Weight gain of filter in mgs}}{3.785} = \text{mg/liter}$$

l. Should the sample exceed the 30-minute filtration time and a portion of the fuel is not filtered,the solids content in mg/liter will be figured as follows: Determine the volume of fuel filtered by subtracting the ml of fuel remaining from 3.785.

$$\frac{\text{Weight gain of filter in mgs}}{\text{ml of fuel filtered X 0.001}} = \text{mg/liter}$$

m. Vacuum shall exceed 67.5 kPa (20 in. of mercury) throughout the test and fuel temperature shall be between 18 and 30°C.

9/ Use the appropriate scale of the refractometer.

10/ Fuel at ambient temperature or 29.4C (85F) and lower.

11/ Metals: Copper will be performed in accordance with IP-225, Determination of copper in light petroleum distillates - Specrophotometric Method. Sensitivity: The laboratory must have the apparatus and expertise to enable them to perform the analysis and report results in the part per billion (PPB) range.

FUEL, NAVY DISTILLATE NATO F-76

TESTING REQUIREMENTS, MIL-F-16884 (Latest Version)

A. Full Specification Testing (A Series), includes the first 19 tests in the table below, provide one price for tests 1-19. Testing shall be performed in accordance with the specified test method.

B. Individual tests or any combination of several tests maybe requested, provide individual prices for all tests listed below.

	CHARACTERISTIC	TEST METHOD, ASTM,
1	Appearance	D4176 (1)
2	Demulsification	D1401 (2)
3	Density or API Gravity	D1298 (R), D4052, D287
4	Distillation	D86 (3)
5	Cloud Point	D2500(R), D5771(4), D5772(4), D5773 (4), D6371 (5), IP309 (5), D4539(6)
6	Color (ASTM)	D1500 (R), D6045
7	Flash Point	D93
8	Particulate Contamination	D6217 (R), D5452 (7)
9	Pour Point	D97 (R), D5949 (8), D5950 (8)
10	Viscosity at 40^{o}C	D445
11	Acid Number	D974 (R), D664
12	Ash	D482
13	Carbon Residue (10% Bottoms) (9)	D524 (R), D189, D4530
14	Copper Strip Corrosion	D130
15	Hydrogen Content	D4808 (R), D5291
16	Ignition Quality : Cetane Number or Cetane Index	D613 (R), D976
17	Storage Stability	D5304(R), D2274 (10)
18	Sulfur Content, wt. %	D4294 (R), D129, D1552, D2622
19	Trace Metals, (Calcium, Lead, Sodium plus Potassium, Vanadium)	D3605 (11)
20	Water & Sediment	D2709
21	Sulfides in Bottom Water	See Statement of Work (Attachment 3)

A. B-1 Series Testing (one price for the following 7 tests):

	CHARACTERISTIC
1	Appearance
2	Density or API Gravity
3	Distillation
4	Color
5	Flash Point
6	Particulate Contamination
7	Carbon Residue

ATTACHMENT 5

B. B-2 Series Testing (one price for the following 15 tests):

	CHARACTERISTIC
1	Appearance
2	Density or API Gravity
3	Distillation
4	Cloud Point
5	Color
6	Flash Point
7	Particulate Contamination
8	Pour Point
9	Viscosity at 40^{o}C
10	Storage Stability
11	Carbon Residue (10% Bottoms)
12	Copper Strip Corrosion
13	Cetane Index
14	Sulfur
15	Water & Sediment by centrifuge

C. Type C Testing (one price for the following 4 tests):

	CHARACTERISTIC
1	Workmanship
2	Density or API Gravity
3	Color
4	Flash Point

NOTES:

(R) Referee Method

Notes:

(1) If the sample has no visible particulates, but is otherwise not “clear and bright” per ASTM D4176, procedure 1, then the product must be tested per ASTM D2709, to determine percent volume of water and sediment. If the sample fails ASTM D4176, procedure 1, because it contains visible sediment or particulate matter, product must be tested as per ASTM D5452 or ASTM D6217.

(2) The demulsification test shall be conducted in accordance with ASTM D1401 with the following exceptions:

(a)Synthetic seawater in accordance with ASTM D1141 shall be the emulsifying fluid.

(b)The test temperature shall be 25 °C.

(c)The demulsification time shall be that required for separation into two layers with no visible cuff at the interface. A lacy emulsion or cuff which does not form a band shall be

disregarded. The fuel/water/emulsion layer volumes shall be recorded at one-minute intervals and the demulsification time reported to the nearest minute.

(3) As the end point of the distillation is approached, if either a thermometer reading of 385 °C or a decomposition point is observed, the heating shall be discontinued and the procedure resumed as directed in ASTM D86.

(4) If either ASTM D5571, D5572, or D5573 is used, the temperature recorded in each respective test shall be rounded to the next lower integer and reported as the ASTM D2500 equivalent cloud point in accordance with ASTM D5771, D5772 or D5773.

(5) This method may be used as a substitute if the test procedure is modified as follows: apply vacuum to the sample for the first time when the fuel sample temperature reaches –1 oC. If the time required for the 20 ml of fuel to be filtered through the wire mesh filter exceeds 60 seconds, record the test as a failure. If the time required for the 20-ml sample to flow through the filter is 60 seconds or less, record the test result as a pass. Do not repeat application of vacuum at successively lower temperatures. This is a modification of the requirement of ASTM D6371 (IP method 309) that vacuum be applied to the test specimen immediately after the test jar is inserted into the cooling jacket or, at a minimum, when the fuel is a least 5 oC above its cloud point.

(6) Low Temperature Flow Test of ASTM D4539 may be used as a substitute method on the condition that the “specified test temperature” approach provided therein is used: start the test (apply the test vacuum to the test specimen for the first time) when the fuel sample temperature reaches –1 °C. Do not repeat application of vacuum at successive lower temperatures.

(7) If ASTM D5452 is utilized, a one-liter minimum sample is required.

(8) If either ASTM D5949 or D5950 is used, the results from these tests should be based on the observations at 3 °C temperature intervals and reported as the ASTM D97 equivalent.

(9) When the finished fuel contains a cetane improver, the carbon residue requirement specified in Table I shall apply to the base fuel without the cetane improver.

(10) If ASTM D2274 is utilized, the test period shall be extended from 16 hours to 40 hours.

(11) Any quantitative spectroscopic method may be employed if correlation to ASTM D3605 is demonstrated to the satisfaction of the inspection authority.

FUEL SYSTEM ICING INHIBITOR / HIGH FLASH

TESTING REQUIREMENTS, MIL-DTL-85470 (Latest Version), NATO S-1745

A. Full Specification Testing (A Series), includes the 9 tests in the table below, provide one price for tests 1-9. Testing shall be performed in accordance with the specified test method.

B. Individual tests or any combination of several tests maybe requested, provide individual prices for all tests listed below.

CHARACTERISTIC		TEST METHOD, ASTM
1	Workmanship	0/
2	Acid Number	D1613
3	Color (Platinum Cobalt)	D1209 1/, E450
4	Distillation	D1078
5	Ethylene Glycol	2/
6	pH of 25% Solution in Water	E70 3/
7	Relative density (20^oC / 20^oC)	D891 1/ 4/, D4052
8	Water (mass %)	D1364 /1, E1064, or E203
9	Flash Point	D93 /1, D56, or D3828

c. B-1 (one price for the following 6 tests):

CHARACTERISTIC	
1	Workmanship
2	Distillation
3	pH of 25% Solution in Water
4	Relative density (20^oC / 20^oC)
5	Water (% Weight)
6	Flash Point

c. B-2 (one price for the following 5 tests):

CHARACTERISTIC	
1	Workmanship
2	Relative density (20^oC / 20^oC)
3	Acid
4	pH of 25% Solution in Water
5	Water (% Weight)

d. C Series Testing (one price for the following 4 tests):

CHARACTERISTIC	
1	Workmanship
2	Relative Density (20^oC / 20^oC)
3	Water (%, Weight
4	Flash Point

ATTACHMENT 6

NOTES:

0/ Workmanship. Visually inspect the sample the inhibitor shall be uniform in quality, clear and bright, and free from suspended and foreign matter.

1/ Referee Test Method

2/ Ethylene glycol (percent by weight). The percent of ethylene glycol component in the diethylene glycol monomethyl ether shall be determined as below or ASTM-D4171 Annex A1 Test Method for etermining Purity of Fuel System Icing Inhibitors Using Ultra High Purity Ethylene Glycol Monomethyl Ether (anhydrous, 99.5+%) as the calibration standard for the analysis of diethylene glycol monomethyl ether.

Determination of Percent of Ethylene Glycol

Reagents and materials: Unless otherwise indicated, all reagents shall be American Chemical Society reagent grade or equivalent. Reference to water indicates distilled or deionized water.

a. Oxidizing reagents: To a solution containing 5 grams of periodic acid (HIO_4) or 5.9 grams of paraperiodic acid ($HIO_4 \cdot 2H_2O$) in 200 milliliters (ml) of water, add 800 ml of glacial acetic acid. Store the solution in a dark, well-stoppered bottle.

b. Potassium iodide: Twenty percent aqueous solution. Weigh out 20 grams of potassium iodide and dilute to 100 ml with distilled water.

c. Sodium thiosulfate, standard 0.2N: Standardize weekly or before using by an accepted procedure.

d. Starch indicator solution: One percent aqueous.

Procedure:

a. Pipette 100 ml of the oxidizing reagent into each of four 500 ml iodine flasks. Reserve two of the flasks for the blank determination.

b. Introduce 15 grams of the sample, weighed to the nearest 0.1 gram, into each of two flasks and swirl to effect solution.

c. Allow the flasks to stand for 30 minutes at room temperature.

d. While swirling, add 20 ml of 20 percent potassium iodide solution to each flask, in turn, immediately before titrating.

e. Titrate the contents of each flask to a pale yellow color with standard 0.2N sodium thiosulfate. Add 2 ml of starch indicator and titrate to the disappearance of the blue color.

f. If the net titration is more than 20 ml, repeat the determination, using a smaller sample size.

Calculations:

Calculate the concentration of ethylene glycol as:

$$\text{Weight percent ethylene glycol} = \frac{(B-A) \times N \times 3.103}{(s)}$$

Where:
A = ml of sodium thiosulfate required for the sample.
B = average ml of sodium thiosulfate required for the blank.
N = normality of sodium thiosulfate.
s = grams of sample.

3/ pH of 25 percent solution in water. Twenty-five ml of the inhibitor shall be pipetted into a 100 ml volumetric flask and filled with freshly boiled and cooled distilled water having a pH of 6.5 to 7.5. The pH value shall be measured with a pH meter calibrated in accordance with ASTM-E70. To avoid error caused by carbon dioxide in the air, the gas space over the solution shall be purged with carbon dioxide-free air.

4/ See ASTM D891, Method A or B.

TESTING FOR SULFIDES IN BOTTOM WATER

(a) SCOPE. This method describes a procedure for determining the presence of hydrogen sulfide, which is sometimes formed as a result of bacterial action on the sulfates contained in water bottoms in fuel storage tanks.

(b) APPARATUS. 250 ml conical flask.

(c) MATERIALS.
(1) Dilute (10%) chemically pure sulfuric or hydrochloric acid.
(2) Lead acetate paper.

(d) SAMPLES. Representative water samples from storage tank bottoms must be taken in a glass bottle. In some cases it will be necessary to take the water sample in a Bacon bomb sampler. Samples so taken will always be transferred to a glass bottle. To preclude oxidation by air, the filled bottle must be capped immediately. The sample should be tested as soon as possible after sampling to minimize possible changes in the composition of materials in the water.

(e) PROCEDURE.
(1) The sample must be shaken thoroughly just prior to performing the test to make certain that any sediment present is included in the portion of the sample to be tested.
(2) Transfer 100 ml of the shaken sample into a conical flask. Add 20 ml of dilute (10%) chemically pure sulfuric or hydrochloric acid to the flask. Immediately place a piece of lead acetate paper folded in a "V" shape in the neck of the flask. Bring the water to a boil and continue to gently boil for three or four minutes.

(f) REPORT. The presence of sulfides in the sample will be reported if the lead acetate paper shows a black or brown discoloration.

TURBINE FUEL, AVIATION, THERMALLY STABLE
TESTING REQUIREMENTS, MIL-DTL-25524 (LATEST VERSION)

A. Full Specification Testing (A Series), includes all tests listed below (one price for all). Testing shall be performed in accordance with the specified test method.

B. Individual tests are any one, or combination, of tests below (individual prices).

CHARACTERISTIC		Test Methods
1	Workmanship	0/
2	Color, Saybolt	1/ D156 or D6045
3	Total acid number, mg KOH/g	D3242
4	Aromatics, volume percent	D1319
5	Sulfur, Mercaptan, mass percent OR	D3227
6	Doctor Test	D4952
7	Sulfur, total, mass percent	D1266, D2622, D3120, 1/ D4294, or D5453
8	Distillation temperature, °C	/1 D86 or D2887
10	Flash point, °C (°F)	D56, /1 D93, or /2 D3828
11	Density, kg/L (API) at 15°C	D1298 or 1 D4052
13	Freezing point, °C (°F)	1/ D2386, D5901 or D5972
14	Viscosity, centistokes, at -40°C	D445
15	Net heat of combustion, MJ/kg (BTU/lb)	D3338, D4529, or 3/ D4809
17	Hydrogen content, mass percent OR	D3343 or 1/ 4/ D3701
18	Smoke point, mm	D1322
19	Copper strip corrosion, 2 hr at 100°C	D130
21	Thermal stability (JFTOT)	5/ D3241
22	Existent gum, mg/100 mL	6/ D381
23	Particulate Matter mg/L	7/ D2276 or 7/ D5452
24	Water Reaction	D1094
25	Water Separation	D3948
26	Fuel system icing inhibitor, % vol	8/ D5006

ATTACHMENT 8

C. B-1 Series Testing (one price for the following 14 tests):

	CHARACTERISTIC
1	Workmanship
2	Color, Saybolt
3	Distillation temperature
4	Flash point
5	Density, kg/L
6	Freezing point,
7	Copper strip corrosion,
8	Thermal stability (JFTOT)
9	Existent gum
10	Particulate Matter
11	Water Reaction
12	Fuel system icing inhibitor

C. B-2 Series Testing (one price for the following 17 tests):

CHARACTERISTIC
1) Workmanship
2) Color (Visual)
3) Distillation
4) Flash Point
5) Density or API Gravity
6) Freezing Point
7) Copper Strip Corrosion
8) Existent Gum
9) Particulate Matter (Solids)
10) Filtration Time
11) Water Reaction
12) Water Separation Index
13) Fuel Systems Icing Inhibitor
14) Fuel Electrical Conductivity
15) Thermal Stability
16) Color, Saybolt
17) Total Acid Number

D. Type C Testing (one price for the following 4 tests):

CHARACTERISTIC	
1	Workmanship
2	Color, Saybolt
3	Density, kg/L (API)
4	Flash point

NOTES:

0/ Workmanship. Visually inspect the fuel: clear, bright, and visually free from undissolved water, sediment, or suspended matter. In case of dispute, the fuel shall be clear and bright at 21°C (70°F).

1/ Referee Test Method

2/ ASTM D56 may give results up to 1°C (2°F) below the ASTM D93 results. ASTM D3828 may give results up to 1.7°C (3°F) below the ASTM D93 results.

3/ For calculating the net heat of combustion using ASTM D3338, the average distillation temperature shall be calculated as follows, when the distillation is performed using ASTM D2887: V = ((10% + 50% + 90%) / 3)

4/ For calculating the hydrogen content using ASTM D3343, the average distillation temperature shall be calculated as follows when the distillation is performed using ASTM D2887: V = ((10% + 50% + 90%) / 3)

5/ Thermal stability. The thermal stability test shall be conducted using *ASTMD3241* (JFTOT).

Stability test conditions.
a. Heater tube temperature at maximum point: 335°C (635°F)
b. Fuel system pressure: 3.43 MPa (500 pounds/square inch of gravity)
c. Fuel flow rate: 3.0 milliliter/minute
d. Test duration: 150 minutes.

The heater tube shall be rated using the Alcor Mark 8A or Alcor Mark 9 Tube Deposit Rater (TDR)

a. Both before and after the JFTOT test, the heater tube shall be rated at 1 millimeter (mm) increments over the length of the heater tube that can be rated using the Alcor Mark 8A or Mark 9 TDR. The maximum increase in the TDR ratings (i.e., the maximum difference seen between the post-test and the pre-test TDR rating) shall be reported.

Report the following data
a. Tube deposit TDR ratings.
b. Differential pressure across the test filter.

6/ If air is used instead of steam while performing ASTM D381, it must be reported. In case of a failure with air, the sample must be retested using steam.

7/ A minimum sample size of 3.785 liters (1 gallon) shall be filtered.

8 Test shall be performed in accordance with ASTM D5006 or method 5327, 5340, or 5342 of FED-STD-791. Use the appropriate scale of the refractometer.

CLIN 0001 – Baton Rouge, LA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	50	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	62	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0001 – Baton Rouge, LA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	4	$ _____
	JP5	B-2	0	
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	4	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0002, Homestead, FL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	25	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0003 – Key West, FL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	25	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0004 – Lockhart, MS

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	15	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	15	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0005 – Montgomery, AL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	25	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	25	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0006 – Moundville, AL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	25	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual * See Below	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	25	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0007 – Moffett Field, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	20	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0008 – New York Harbor Area

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	225	$ _____
	JP8	B-2	4	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual * SEE BELOW	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent	* 135	$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability	* 15	$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water	* 225	$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0008 – New York Harbor Area

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	18	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual *SEE BELOW	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability	* 3	$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water	* 18	$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0008 – New York Harbor Area

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test		Est.Sample	Price per tests/Series
	F76	B-1		18	$ _____
	F76	B-2		4	$ _____
	F76	C		0	$ _____
	F76	Individual	* SEE BELOW	UTE	
			Appearance		$ _____
			Demulsification		$ _____
			Density or API Gravity		$ _____
			Distillation		$ _____
			Cloud Point		$ _____
			Color (ASTM)	* 18	$ _____
			Flash Point		$ _____
			Particulate Contamination		$ _____
			Pour Point		$ _____
			Viscosity @40C		$ _____
			Acid Number		$ _____
			Ash		$ _____
			Carbon Residue (10% Bottoms)		$ _____
			Copper Strip Corrosion		$ _____
			Hydrogen Content		$ _____
			Ignition Quality Cetane Number		$ _____
			Ignition Quality Cetane Index		$ _____
			Storage Stability	* 6	$ _____
			Sulfur Content	* 12	$ _____
			Trace Metals		$ _____
			Water and Sediment		$ _____
			Sulfides in Bottom Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	F76	Transportation	0	$ _____
	F76	Vessel Sampling	0	$ _____
	F76	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0008 – New York Harbor Area

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN	Product	Type of Test	Est.Sample	Price per tests/Series
	FSII	A	0	$ _____
	FSII	B-1	22	$ _____
	FSII	C	0	$ _____
	FSII	Individual	UTE	
		Workmanship		$ _____
		Acid Number		$ _____
		Color (Platinum Cobalt)		$ _____
		Distillation		$ _____
		Ethylene Glycol		$ _____
		pH of 25% Solution in Water		$ _____
		Relative density (20^oC / 20^oC)		$ _____
		Water (mass %)		$ _____
		Flash Point		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	FSII	Transportation	0	$ _____
	FSII	Vessel Sampling	0	$ _____
	FSII	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0009 – Selby, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	0	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	405	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0009 – Selby, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	0	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	400	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water	* 18	$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0011 – Salt Lake City, UT

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	18	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	18	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0012 – Doraville, Breman, GA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	25	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	25	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0012 – Doraville, Breman, GA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN	Product	Type of Test	Est.Sample	Price per tests/Series
	FSII	A	8	$ _____
	FSII	B-1	0	$ _____
	FSII	C	0	$ _____
	FSII	Individual	UTE	
		Workmanship		$ _____
		Acid Number		$ _____
		Color (Platinum Cobalt)		$ _____
		Distillation		$ _____
		Ethylene Glycol		$ _____
		pH of 25% Solution in Water		$ _____
		Relative density (20^oC / 20^oC)		$ _____
		Water (mass %)		$ _____
		Flash Point		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	FSII	Transportation	8	$ _____
	FSII	Vessel Sampling	0	$ _____
	FSII	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0013 – Port Everglades, FL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	6	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	6	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0014 - Houston, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN	Product	Type of Test	Est.Sample	Price per tests/Series
	FSII	A	4	$ _____
	FSII	B-1	0	$ _____
	FSII	C	0	$ _____
	FSII	Individual	0	
		Workmanship		$ _____
		Acid Number		$ _____
		Color (Platinum Cobalt)		$ _____
		Distillation		$ _____
		Ethylene Glycol		$ _____
		pH of 25% Solution in Water		$ _____
		Relative density (20^oC / 20^oC)		$ _____
		Water (mass %)		$ _____
		Flash Point		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	FSII	Transportation	0	$ _____
	FSII	Vessel Sampling	0	$ _____
	FSII	Tank Sampling	4	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0014 - Houston, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1		$ _____
	JP5	B-2	64	$ _____
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	64	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0014 - Houston, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	F76	B-1	79	$ _____
	F76	C	0	$ _____
	F76	Individual	80	
		Appearance		$ _____
		Demulsification		$ _____
		Density or API Gravity		$ _____
		Distillation		$ _____
		Cloud Point		$ _____
		Color (ASTM)		$ _____
		Flash Point		$ _____
		Particulate Contamination		$ _____
		Pour Point		$ _____
		Viscosity @40C		$ _____
		Acid Number		$ _____
		Ash		$ _____
		Carbon Residue (10% Bottoms)		$ _____
		Copper Strip Corrosion		$ _____
		Hydrogen Content		$ _____
		Ignition Quality Cetane Number		$ _____
		Ignition Quality Cetane Index		$ _____
		Storage Stability		$ _____
		Sulfur Content		$ _____
		Trace Metals		$ _____
		Water and Sediment		$ _____
		Sulfides in Bottom Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	F76	Transportation	0	$ _____
	F76	Vessel Sampling	0	$ _____
	F76	Tank Sampling	77	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0014 - Houston, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	0	$ _____
	JP8	B-2	68	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	2	$ _____
	JP8	Individual	78	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	40	$ _____
	JP8	Tank Sampling	65	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0014 – Houston, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JPTS	B-1	0	$ _____
	JPTS	B-2	32	$ _____
	JPTS	C	49	$ _____
	JPTS	Individual	213	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total acid number, mg KOH/g		$ _____
		Aromatics, volume percent		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		OR		
		Doctor Test		$ _____
		Sulfur, total, mass percent		$ _____
		Distillation temperature, °C		$ _____
		Flash point, °C (°F)		$ _____
		Density, kg/L (API) at 15°C		$ _____
		Freezing point, °C (°F)		$ _____
		Viscosity, centistokes, at -40°C		$ _____
		Net heat of combustion, MJ/kg		$ _____
		(BTU/lb)		
		Hydrogen content, mass percent		$ _____
		OR		
		Smoke point, mm		$ _____
		Copper strip corrosion, 2 hr at		$ _____
		100°C		
		Thermal stability (JFTOT)		$ _____
		Existent gum, mg/100 mL		$ _____
		Particulate Matter mg/L		$ _____
		Water Reaction		$ _____
		Water Separation		$ _____
		Fuel system icing inhibitor, % vol		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JPTS	Transportation	0	$ _____
	JPTS	Vessel Sampling	4	$ _____
	JPTS	Tank Sampling	30	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0015 – Norwalk, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test		Est.Sample	Price per tests/Series
	JP8	B-1		120	$ _____
	JP8	B-2		0	$ _____
	JP8	C		0	$ _____
	JP8	Air Force One		UTE	$ _____
	JP8	Individual	* see below	UTE	
		Workmanship			$ _____
		Color, Saybolt			$ _____
		Total Acid Number, mg KOH/gm			$ _____
		Aromatics			$ _____
		Sulfur, Total Percent			$ _____
		Sulfur, Mercaptan			$ _____
		Doctor Test			$ _____
		Distillation			$ _____
		Flash Point			$ _____
		Density, or API Gravity			$ _____
		Freezing Point			$ _____
		Viscosity at -20^{o}C			$ _____
		Net Heat of Combustion			$ _____
		Hydrogen Content			$ _____
		Smoke Point			$ _____
		Naphthalenes			$ _____
		Cetane Index, Calculated			$ _____
		Copper Strip Corrosion			$ _____
		Thermal Stability	* Special	100	$ _____
		Existent Gum			$ _____
		Particulate Matter and Filtration Time			$ _____
		Water Reaction, Interface Rating			$ _____
		Water Separation Index			$ _____
		Fuel Systems Icing Inhibitor			$ _____
		Fuel Electrical Conductivity			$ _____
		Color, Visual			$ _____
		Particulate Matter (Solids)			$ _____
		Filtration Time			$ _____
		Sulfides in Water			$ _____
		Copper (CU)			$ _____
		Karl Fisher Water			$ _____
		Water - AEL or Aqua-Glo			$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	UTE	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0015 – Norwalk, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	120	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	UTE	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0016 - San Pedro, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	A	2	$ _____
	JP8	B-1	100	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual - *See Below	100	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability *SPECIAL	100	$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	UTE	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0016 - San Pedro, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	A	2	$ _____
	JP5	B-1	60	$ _____
	JP5	B-2	0	
	JP5	C	0	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	UTE	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0016 - San Pedro, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	F76	A	2	$ _____
	F76	B-1	50	$ _____
	F76	C		$ _____
	F76	Individual		
		Appearance		$ _____
		Demulsification		$ _____
		Density or API Gravity		$ _____
		Distillation		$ _____
		Cloud Point		$ _____
		Color (ASTM)		$ _____
		Flash Point		$ _____
		Particulate Contamination		$ _____
		Pour Point		$ _____
		Viscosity @40C		$ _____
		Acid Number		$ _____
		Ash		$ _____
		Carbon Residue (10% Bottoms)		$ _____
		Copper Strip Corrosion		$ _____
		Hydrogen Content		$ _____
		Ignition Quality Cetane Number		$ _____
		Ignition Quality Cetane Index		$ _____
		Storage Stability		$ _____
		Sulfur Content		$ _____
		Trace Metals		$ _____
		Water and Sediment		$ _____
		Sulfides in Bottom Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	F76	Transportation	UTE	$ _____
	F76	Vessel Sampling	0	$ _____
	F76	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0016 - San Pedro, CA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN	Product	Type of Test	Est.Sample	Price per tests/Series
	FSII	A	10	$ _____
	FSII	B-1	0	$ _____
	FSII	C	0	$ _____
	FSII	Individual	UTE	
		Workmanship		$ _____
		Acid Number		$ _____
		Color (Platinum Cobalt)		$ _____
		Distillation		$ _____
		Ethylene Glycol		$ _____
		pH of 25% Solution in Water		$ _____
		Relative density (20^oC / 20^oC)		$ _____
		Water (mass %)		$ _____
		Flash Point		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	FSII	Transportation	UTE	$ _____
	FSII	Vessel Sampling	0	$ _____
	FSII	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0017 – Cushing, OK

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	4	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	4	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	UTE	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0017 – Cushing, OK OR DRUMWRIGHT OK ????????

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	4	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	2	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	UTE	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0019 – Baltimore, MD

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	30	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	20	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	30	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0020 Chicago

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	6	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0020 Chicago

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JETA/A1	B-1	6	$ _____
	JETA/A1	B-2	0	$ _____
	JETA/A1	C	0	$ _____
	JETA/A1	Individual	UTE	
		Workmanship, Finish, Appearance		$ _____
		Color, Visual		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan		$ _____
		Sulfur, Total Mass %		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at $-20^{o}C$		$ _____
		Net Heat of Combustion		$ _____
		Smoke Point, mm		$ _____
		Naphthalenes		$ _____
		Copper Strip Corrosion		$ _____
		JFTOT Thermal Stability		$ _____
		Existent Gum		$ _____
		Water Reaction, Interface Rating		$ _____
		Microseparometer Rating		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Saybolt		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Particulate and Filter Time		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Sulfides in Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JETA/A1	Transportation	0	$ _____
	JETA/A1	Vessel Sampling	0	$ _____
	JETA/A1	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0022 – Coraopolis, PA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	A	2	$ _____
	JP8	B-1	5	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	5	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	12	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0023 – Columbus, GA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	12	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	4	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	16	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0025 – DESP Selma, NC

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	14	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	14	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0025 – DESP Selma, NC

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	15	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	14	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0027 – Boston, MA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	6	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	6	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	6	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0028 – Portland, ME SOUTH PORTLAND ???

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	17	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	20	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0029 – Alamogordo, NM

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	70	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	20	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0031 – Las Vegas, Nevada

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	0	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	100	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	100	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0032 – Colton, Nevada

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	6	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	4	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	10	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0033 - Norfork, VA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	10	$ _____
	JP8	B-2	0	$ _____
	JP8	C	2	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0033 - Norfork, VA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	10	$ _____
	JP5	B-1	0	$ _____
	JP5	B-2	0	$ _____
	JP5	C	2	$ _____
	JP5	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0033 - Norfork, VA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	F76	B-1	0	$ _____
	F76	C	0	$ _____
	F76	Individual	UTE	
		Appearance		$ _____
		Demulsification		$ _____
		Density or API Gravity		$ _____
		Distillation		$ _____
		Cloud Point		$ _____
		Color (ASTM)		$ _____
		Flash Point		$ _____
		Particulate Contamination		$ _____
		Pour Point		$ _____
		Viscosity @40C		$ _____
		Acid Number		$ _____
		Ash		$ _____
		Carbon Residue (10% Bottoms)		$ _____
		Copper Strip Corrosion		$ _____
		Hydrogen Content		$ _____
		Ignition Quality Cetane Number		$ _____
		Ignition Quality Cetane Index		$ _____
		Storage Stability		$ _____
		Sulfur Content		$ _____
		Trace Metals		$ _____
		Water and Sediment		$ _____
		Sulfides in Bottom Water		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	F76	Transportation	0	$ _____
	F76	Vessel Sampling	0	$ _____
	F76	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0036 – Rapid City, SD

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	A	4	$ _____
	JP8	B-1	36	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual		
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	40	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0037 - Paulsboro, NJ

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	36	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual * see below	36	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water	* 36	$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0038 – Pt. Mahon, DE

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	4	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0039 - Jacksonville, NJ

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	4	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0041 – DESP Tampa, FL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	14	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	14	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0041 – DESP Tampa, FL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP5	B-1	15	$ _____
	JP5	B-2	0	$ _____
	JP5	C	0	$ _____
	JP5	Individual	14	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number		$ _____
		Aromatics		$ _____
		Sulfur, Mercaptan, mass percent		$ _____
		Doctor Test		$ _____
		Sulfur, Total Percent		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Heating Value, Net Heat of Combustion		$ _____
		Cetane Index, Calculated		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter		$ _____
		Filtration Time		$ _____
		Particulate Matter and Filtration Time		$ _____
		Micro-separometer Rating (11)		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Visual (Color)		$ _____
		Sulfides in Bottom Water		$ _____
		Copper (CU)		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP5	Transportation	0	$ _____
	JP5	Vessel Sampling	0	$ _____
	JP5	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0042 – Ludlow, MA

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	15	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	15	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0043 - Andrews AFB, MD

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. - Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	5	$ _____
	JP8	B-2	0	$ _____
	JP8	C	5	$ _____
	JP8	Air Force One	UTE	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	5	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0044 – Helena, AL

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	1	$ _____
	JP8	B-2	0	$ _____
	JP8	C	0	$ _____
	JP8	Air Force One	0	$ _____
	JP8	Individual	UTE	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	0	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.

CLIN 0045 – Abilene, TX

• Lab name and address:	• Name of Lab Manager
	• Lab Phone Number
	• Lab Fax Number

Charge for working outside normal working hours (overtime): $_____ per hour

Normal working hours _____ am - _____ pm Mon. – Fri. Except Holidays

SubCLIN:	Product	Type of Test	Est.Sample	Price per tests/Series
	JP8	B-1	15	$ _____
	JP8	B-2	0	$ _____
	JP8	C	25	$ _____
	JP8	Air Force One	0	$ _____
	JP8	Individual	15	
		Workmanship		$ _____
		Color, Saybolt		$ _____
		Total Acid Number, mg KOH/gm		$ _____
		Aromatics		$ _____
		Sulfur, Total Percent		$ _____
		Sulfur, Mercaptan		$ _____
		Doctor Test		$ _____
		Distillation		$ _____
		Flash Point		$ _____
		Density, or API Gravity		$ _____
		Freezing Point		$ _____
		Viscosity at -20^{o}C		$ _____
		Net Heat of Combustion		$ _____
		Hydrogen Content		$ _____
		Smoke Point		$ _____
		Naphthalenes		$ _____
		Cetane Index, Calculated		$ _____
		Copper Strip Corrosion		$ _____
		Thermal Stability		$ _____
		Existent Gum		$ _____
		Particulate Matter and Filtration Time		$ _____
		Water Reaction, Interface Rating		$ _____
		Water Separation Index		$ _____
		Fuel Systems Icing Inhibitor		$ _____
		Fuel Electrical Conductivity		$ _____
		Color, Visual		$ _____
		Particulate Matter (Solids)		$ _____
		Filtration Time		$ _____
		Sulfides in Water		$ _____
		Copper (CU)		$ _____
		Karl Fisher Water		$ _____
		Water - AEL or Aqua-Glo		$ _____

SubCLIN	Product	Task	Est. Sample	Price per task
	JP8	Transportation	50	$ _____
	JP8	Vessel Sampling	0	$ _____
	JP8	Tank Sampling	0	$ _____

Note: C-Testing and Sampling will be performed locally, in order to meet the 1 hour turnaround time requirement.